REMARKS

I. Amendments to Specification

Amendments to pages 6 and 20 are provided. The amendments are as follows:

- page 6

The sequence PKKKRKV corresponding to SEQ ID NO: 25 and SEQ ID NO: 26 in the sequence listing is identified by its SEQ ID NO:.

The sequence KIPIK which was missing in the sequence listing is added to the new sequence listing under the SEQ ID NO: 43.

-Table I page 20

The sequences presented in Table I which were missing in the sequence listing are added to the new sequence listing under the SEQ ID NO: 44 to 49.

II. Corrected Formal Drawings

Seven (7) new sheets of formal drawings are submitted herewith to replace the drawings presently on file in response to the Notice of Draftsperson's Patent Drawing Review. These new formal drawings are believed to overcome the draftsperson's objections regarding quality. In addition, Figure 7 has been amended to identify the sequences presented therein with sequence identification numbers, SEQ ID NO: 26 to 42.

III. New sequence listing

An amended sequence listing including the sequences from page 6 and page 20 is provided as hard copy and on a diskette. In this sequence listing, SEQ ID NO: 1 to 42 are unmodified and sequences SEQ ID NO: 43 to 49 correspond respectively to the KIPIK sequence presented in page 6 and to the sequences presented in figure 7.

IV. New set of claims

In the accompanying new set of claims, all the claims are limited to the elected species. The clerical errors in claims 3 and 12 have been corrected and the expression "transfection vector" in claim 8 is replaced by "transfecting peptide".

In addition, to overcome the objections as regards novelty of the claims over the disclosure by CHROBOCZEK et al., claims 1, 2 and 10 are limited as follows:

- claims 1 and 2 are limited to a transfection composition consisting of:
    - a chemical substance to transfect, and
    - one or more peptide comprising SEQ ID NO: 2, SEQ ID NO: 7, SEQ ID NO: 10, SEQ ID NO: 16, and (claim 1)/or (claim 2) combined with, a polymeric sequence of basic amino acids.
- claim 10 is limited to a transfection composition consisting essentially of:
    - a chemical substance to transfect, and
    - a peptide comprising SEQ ID NO: 2, SEQ ID NO: 10, SEQ ID NO: 16, and a polylysine.

New claims 15 are 16 are added; support for which is found in Table I, page 20.

V. - Response to the Examiner's objections

1) Novelty and non-obviousness of the claims in view of the prior art cited

The amended claims are novel and unobvious in view of the prior art cited, for the following reasons:

a) Novelty

None of the documents cited discloses a transfection composition consisting of:

1. a peptide comprising SEQ ID NO: 2, SEQ ID NO: 7, SEQ ID NO: 10, SEQ IN NO: 16, and (claim 1)/or (claim 2) combined with a polymeric sequence of basic amino acids, and
2. the chemical substance to transfect.

Signas et al. (D1) do not disclose any transfection composition.

Kajon et al. (D2) do not disclose any transfection composition.

Chroboczek et al. (D3) disclose a transfection composition which contains:

- a peptide comprising the sequences SEQ ID NO: 2, SEQ ID NO: 7, SEQ ID NO: 10, SEQ ID NO: 16 and a polylysine,
- the chemical substance to transfect, and
- **an adenovirus protein complex formed by 12 pentons and 12 penton bases (dodecahedrons).**

b) Non-obviousness

The claimed transfection composition which contains the peptide of D3 as active ingredient is not obvious in view of the prior art cited since:

- D1 and D2 which disclose full length adenovirus fiber sequences only are totally silent as regards eukaryotic cells transfection.
- D3 discloses a transfection composition containing adenovirus dodecahedrons and a bifunctional peptide presenting the sequence of the transfecting peptide as defined in the present invention.
- D3 teaches that dodecahedrons are the only active ingredients of the transfection composition, said dodecahedrons being **essential** for the penetration (internalization) of a chemical substance into eukaryotic cells (column 5, lines 1 to 6); D3 shows that dodecahedrons alone are internalized efficiently into the cytoplasm of eukaryotic cells and localize at the cytoplasmic surface of the nuclear membrane (example 2, figures 8, 9 and 10).
- D3 teaches also that the bifunctional peptide is an accessory ingredient of the transfection composition which can be used in combination with the dodecahedron, to immobilize DNA onto the dodecahedrons (example 4); the N-terminal sequence of the adenovirus fiber containing amino acids 11 to 22 is able to bind to the dodecahedrons, whereas the polylysine binds DNA (column 4, lines 12 to 21 and 31 to 43). D3 shows that dodecahedrons

combined with the bifunctional peptide are able to transfect DNA into cells (example 3).

Thus, to transfect eukaryotic cells, the skilled artisan would not remove the adenovirus dodecahedron which is the only active ingredient from the transfection composition of D3 and replace it by a bifunctional peptide which is an accessory element that can be used in combination with the dodecahedrons to immobilize DNA onto the dodecahedrons.

2) Rejections of claims 1-3, 5-7, 9, 11-14 as containing non-elected subject matter.

This objection no longer applies to the claims since all the claims are limited to the transfection compositions, wherein the transfecting peptide comprises SEQ ID NO: 2, SEQ ID NO: 7, SEQ ID NO: 10, SEQ ID NO: 16 and a polymeric sequence of basic amino acids.

3) Rejection of claim 8 under 35 U.S.C.§112 second paragraph

This objection no longer applies to this claim since the expression "transfection vector" has been replaced by "transfecting vector" which has antecedent in claim 1 and claim 2.

4) Rejection of claim 10 under 35 U.S.C. §102b)

The transfection composition disclosed in CHROBOCZEK contains:

1. a peptide comprising the sequences: SEQ ID NO: 2, SEQ ID NO: 7, SEQ ID NO: 10, SEQ ID NO: 16 and a polylysine,
2. the chemical substance to transfect (DNA), and
3. **an adenovirus protein** complex **formed by 12 pentons and 12 penton bases (dodecahedrons).**

This composition is different from the transfection composition according to claim 10 which consists of:

1. one or more peptide comprising the sequences SEQ ID NO: 2, SEQ ID NO: 10, SEQ ID NO: 16 and a polylysine, and

2. the chemical substance to transfect (DNA).

Thus the transfection composition as claimed in claim 10 is novel over the disclosure by CHROBOCZEK et al.

VI. Conclusion

It is believed that the accompanying amendments overcome all of the issues raised by the Official Action and place this application in condition for immediate allowance. Accordingly, entry of this amendment and formal notification of the allowance of all claims are solicited.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on November 6, 2003

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